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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,437	08/30/2006	Cedric Calvez	Q92127	6383
23373	7590	11/13/2009	EXAMINER	
SUGHRUE MION, PLLC			KRUER, KEVIN R	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037			1794	
			NOTIFICATION DATE	DELIVERY MODE
			11/13/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@SUGHRUE.COM  
PPROCESSING@SUGHRUE.COM

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/561,437	CALVEZ ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	KEVIN R. KRUER	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 June 2009.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 25-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 25-48 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in 6/23/03 on the European Patent Office. It is noted, however, that applicant has not filed a certified copy of the EP application as required by 35 U.S.C. 119(b).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 25-38 and 40-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spears et al (US 6,455,148) in view of Botros (US 2004/0116602).

Spears teaches a laminate comprising a polyethylene core and 2 metallic skin layers adhered thereto (Figure 1 and col 3, lines 20+). The laminate is made by applying the adhesive to the metallic skin layers and then laminating the layers to the polyethylene core (col 5, lines 13+), heated and then pressed to make the laminate. The metal may comprise aluminum (col 5, line 22). With regards to claim 48, the limitation "automotive body part" is herein understood to be a preamble limitation that does not provide additional structure to the claim and does not patentably distinguish the claimed invention from the laminate taught in Spears in that the laminate of Spears is capable of being used as an automobile panel.

Spears teaches the adhesive may comprise a graft modified polyethylene composition (col 6, lines 43+) but does not teach the claimed adhesive composition. However, Botros teaches a composition comprising a blend of a polyolefin base resin, an acid or acid derivative modified polyolefin and a silane modified polyolefin (Abstract). Herein the silane modified polyolefin is understood to read on the claimed silane compound and the modified polyolefin is understood to read on the grafted unsaturated carboxylic acid. The carboxylic acid may be a C1-C6 carboxylic group such as maleic acid or derivative thereof (herein understood to read on the claimed maleic acid anhydride of claim 32) (0025). The silane may be a vinylalkoxysilane or a trialkoxysilane (0029). The composition comprises 65-95.5wt% (0032) base resin comprising HDPE (0015) and an elastomer in relative amount of 15: to 1:1 (0016). Said ratio is understood to be sufficient specific to read on the elastomer percentages of claims 35 and 36. It would have been obvious to utilize the composition of Botros as the adhesive of Spears because said composition has improved adhesion to metals.

With regards to claim 26, Spears teaches the laminate may be formed into a composite of various lengths, widths and shapes (col 5, lines 10+). Thus, it would have been obvious to use metallic sheets of different sizes in order to obtain a laminate with the desired shape, length, or width.

With regards to claims 28, 29, 37, and 38, Botros does not teach the grafted polyethylene should comprise at least 50% of the adhesive composition. However, the graft functionalities are taught to improve the adhesion of the composition to metallic substrates. Thus, it would have been obvious to the skilled artisan to graft polymerize

Art Unit: 1794

the entire composition taught in order to improve the adhesion to metallic substrates.

Furthermore, functionalizing the entire composition will result in functionalized styrene elastomers (0021), such as styrene maleic anhydride.

With regard to claim 41, Botros does not explicitly teach the use of flame retardants but teaches the adhesive may comprise stabilizing additives (0034). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add a flame retardant to the adhesive taught in Botros. The motivation for doing so would have been to improve the flame retardant properties of the composite laminate.

With regards to claims 42 and 43, the gel content is herein understood to be a latent property of the composition taught in Botros. Alternatively, it would have been obvious to the skilled artisan to optimize the crosslinking density of the composition taught in Botros to obtain a high gel content. The motivation for doing so would have been because Botros teaches the functional grafts increase the adhesive properties of the composition

1. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Spears et al (US 6,455,148) in view of Botros (US 2004/0116602), as applied to claims 25-38 and 40-48 above, and further in view of JP 56132709A (herein referred to as Showa).

Spears in view of Botros is relied upon as above but does not teach epoxy resin may be added to the composition. However, Showa teaches water treeing defects are minimized when crosslinked polyethylene is blended with 0.5-15wt% epoxy resin (abstract). Thus, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to add 0.5-15wt% epoxy to the crosslinked polyethylene taught in Botros in order to minimize water treeing.

***Response to Arguments***

Applicant's arguments filed June 23, 2009 have been fully considered but they are not persuasive.

Applicant argues Botros does not teach or suggest a crosslinked polyethylene or a copolymer thereof or co-grafting with a silane compound and with unsaturated carboxylic acid and/or derivative. The examiner respectfully disagrees on both points. Applicant teaches the siloxane functionalized polymer can be crosslinked by ambient air humidity or exposure to water (page 11). The adhesive of Botros will inherently be exposed to ambient air humidity. Furthermore, Botros teaches exposing the adhesive to hot water prior to adhesion testing (0053). Thus, the adhesive taught in Botros is understood to be crosslinked by hydrolysis.

With respect to applicant's co-grafting argument, it is noted that "co-grafting" is used in the art to mean the chemical linkage of a first molecule of one polymer of an interdispersion to a different molecule of a second polymer of the same interdispersion so that the two distinct molecules are chemically linked or grafted (US 4,758,627; col 15, lines 34+). Botros teaches two grafted polymers which are interdispersed and which will chemically link upon curing (see US 2006/0222869; paragraph 107). Thus, Botros is understood to read on the claimed co-grafted limitation. Applicant argues co-grafting "implies simultaneous grafting with two different compounds." However, said definition

is not accepted in view of the prior art definition and the lack of support for said definition in the original disclosure.

Applicant further argues that Botros teaches a crosslinked polyethylene only in conjunction with a separate adhesive layer within a rather complicated structure. The examiner respectfully disagrees; the polyethylene adhesive of Botros is crosslinked and the relevant teachings of Botros are not limited to the disclosure of paragraph (0039). Furthermore, the examiner notes the claims are not limited to any particular structure; thus, the “complicated” structure argument does not agree in scope with the claimed invention.

For the reasons noted above, the rejection is maintained.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1794

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN R. KRUER whose telephone number is (571)272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin R Kruer/  
Primary Examiner, Art Unit 1794